

Table 3. Horizontal Curve Collision Urban vs Rural Characteristics

Setting	Grade	2-Lane Curve Collisions		All 2-Lane Collisions	All Roads Collisions
Urban	Level	30%	54%	38%	55%
	Hillcrest		6%		
	Grade		37%		
	Bottom		3%		
Rural	Level	70%	57%	62%	45%
	Hillcrest		3%		
	Grade		37%		
	Bottom		2%		

4.4.2 Collision Characteristics

This section discusses how severity, frequency, type, alcohol involvement, time of day, day of week, month of year, lighting, and surface conditions affect collisions, as determined by our database.

Severity

Collision severity is an important component of collision analysis and countermeasure initiatives. Severity is measured on a five-point scale in NC: fatality (K), disabling injury (type A), evident injury (type B), possible injury (type C), and property damage only (PDO) (NCDMV, 2006). Two-lane curves, compared to three or more lines, typically have narrower lanes and shoulders, more sight distance concerns, and less frequent maintenance than other roadway types. By less frequent maintenance we refer to the fact that higher functional classification roads receive more attention with respect to maintenance practices (plowing, resurfacing, restriping, etc.). Table 4 shows that these factors indicate that two-lane curve collisions have twice the percentage of fatal and type A injury collisions when compared to collisions on all two-lane roads and all roads statewide. Fatal collisions comprise 1.9% of total reported two-lane curve collisions, compared to 0.9% of all two-lane road collisions and 0.6% of all statewide collisions. Disabling injury type A collisions have a similar trend, comprising 3.5% of the total reported number of two-lane curve collisions compared to 1.9% of all two-lane road collisions and 1.4% of all statewide collisions. Two-lane curve collisions are much more severe in urban areas than are all road collisions in those areas.